

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A riding simulation system for providing an operator with a pseudo-experience of running conditions of a motorcycle by displaying scenery seen to the rider as a video image on a display based on the operating condition of operation by the operator, said riding simulation system comprising:

a steering handle mechanism gripped and operated by the operator;

a step mechanism comprising a brake pedal and a gear change pedal which are operated by the feet of the operator;

a connection shaft for connecting said steering handle mechanism and said step mechanism to each other, said connection shaft provided to be extendable and contractible along the axial direction thereof; and

a frame body having a cylindrical portion and at least two main frames that are directly attached to the cylindrical portion, the at least two main frames having curved shapes,

wherein said steering handle mechanism is mounted at upper portions of the cylindrical portion and the connection shaft is disposed midway between and is supported by lower portions of the at least two main frames.

2. (Currently Amended) The riding simulation system as set forth in claim 1, wherein said connection shaft is provided to be inclinable relative to each of said main two frames, and to said steering handle mechanism or said step mechanism.

3. (Original) The riding simulation system as set forth in claim 1, further comprising a vibrator for a dummy engine vibration.

4. (Previously Presented) The riding simulation system as set forth in claim 1, further comprising means for giving a reaction force in a direction opposite to a turning direction of said steering handle mechanism.

5. (Currently Amended) A riding simulation system for providing an operator with a pseudo-experience of a running condition of a motorcycle by generating a vibration based on the operating condition by the operator, said riding simulation system comprising:

a vibrator for a dummy engine vibration in a steering handle mechanism, the vibrator includes an eccentrically mounted weight mounted on a motor shaft extending from an outer end of the vibrator;

a taper surface portion formed at an inner circumferential surface of a steering handle pipe constituting said steering handle mechanism, said taper surface portion gradually decreasing in diameter from the side of an end portion of said steering handle pipe; and

a bracket having an engaging portion for engagement with said end portion of said steering handle pipe, having an outer circumferential surface gradually decreasing in diameter from the side of said engaging portion, and being inserted into said taper surface portion while holding said vibrator,

wherein the bracket includes a pair of brackets,

wherein each of the brackets includes a recess on an inner surface thereof, and when the brackets are mated together, the recesses of the mating brackets form a space in which the vibrator is disposed,

wherein the recesses of the brackets have flat inner faces that oppose each other for engaging with left and right flat sides of the vibrator, and the eccentrically mounted weight is disposed in a portion of the brackets separate from the recesses.

6. (Currently Amended) A riding simulation system comprising a vibrator for a dummy engine vibration in a steering handle mechanism and providing an operator with a pseudo-experience of a running condition of a motorcycle by generating a vibration based on the operating condition by the operator, said riding simulation system comprising:

a bracket having ~~an enclosed~~ a hollow space, the bracket being screw-engaged with an end portion of a steering handle pipe constituting said steering handle mechanism, wherein said

vibrator is inserted ~~into the~~ into an inside of said steering handle pipe ~~in the~~ in a state of being held by said bracket,

wherein a first portion of the hollow space is enclosed and includes two flat inner faces that are parallel to each other for engaging with two parallel flat sides of the vibrator, and

wherein the vibrator includes an eccentrically mounted weight mounted on a motor shaft extending from an outer end of the vibrator so as to be disposed in a second portion of the hollow space that is separate from the first portion ~~in the enclosed hollow space, and~~

~~wherein the hollow space includes two flat inner faces that oppose each other for engaging with left and right flat sides of the vibrator.~~

7 (Currently Amended) A riding simulation system comprising a vibrator for a dummy engine vibration in a steering handle mechanism and providing an operator with a pseudo-experience of a running condition of a motorcycle by generating a vibration based on the operating condition by the operator, the vibrator including an eccentric cam attached to the motor shaft, the eccentric cam being disposed in a portion of the brackets separate from the recesses,

wherein said vibrator is inserted in a bracket and held in an inside of one end portion of a steering handle pipe constituting said steering handle mechanism, and a predetermined gap is formed between an outer circumferential portion of said one end portion of said steering handle pipe and a steering handle grip attached to said outer circumferential portion,

wherein the bracket includes a pair of brackets,

wherein each of the brackets includes a recess on an inner surface thereof, and when the brackets are mated together, the recesses of the mating brackets ~~form a~~ form an enclosed space in which the vibrator is disposed, and

wherein the recesses of the brackets have flat inner faces opposing each other for engaging with left and right flat sides of the vibrator, the eccentric cam being disposed in a portion of the brackets separate from the recesses.

8 (Original) The riding simulation system as set forth in claim 7, wherein said steering handle grip is a throttle grip.

9. (Original) The riding simulation system as set forth in claim 7, wherein said steering handle pipe is comprised of a single pipe communicating one end portion, on which said throttle grip is mounted, and the other end portion to each other.

10. (Original) The riding simulation system as set forth in claim 8, wherein said steering handle pipe is comprised of a single pipe communicating one end portion, on which said throttle grip is mounted, and the other end portion to each other.

11. (Currently Amended) A riding simulation system for providing an operator with a pseudo-experience of running conditions of a motorcycle by displaying scenery seen to the rider as a video image on a display based on an operating condition upon an operation by the operator and detecting a gear change by a sensor provided at a gear change pedal, said riding simulation system comprising:

a click generating means for generating generator adapted to generate a click feeling similar to a gear change in an actual motorcycle when a gear change is made by operating said gear change pedal,

wherein the click generating means generator comprises a support member disposed between a cover member and a support plate, single and a ball member disposed in a hole formed in a shaft projecting from a support member, and triangular the cover member having a single rectangular hole portion formed therein in which the single ball member is engaged when said gear change pedal is in a center position.

12. (Currently Amended) ~~A riding~~ The riding simulation system as set forth in claim 11, when ~~a gear~~ said gear change is made by operating said gear change pedal, said ~~single~~ ball member is released from said ~~single rectangular~~ hole portion and thereafter again engaged in said ~~single rectangular~~ hole portion, whereby a click sound and a vibration are generated.

13. (Currently Amended) A riding simulation system for providing an operator with a pseudo-experience of running conditions of a motorcycle by displaying scenery seen to the rider as a video image on a display based on an operating condition of a dummy operating mechanism operated by the operator, said riding simulation system comprising:

a handle mechanism for operating a steering handle with a handle shaft portion as a turning fulcrum by said operator,

a frame portion including a cylindrical portion into which the handle shaft portion is inserted, and first to third main frames directly connected at equal angular intervals from left, right, and front sides of the cylindrical portion, the first to third main frames ~~for supporting being adapted to support~~ said steering handle shaft portion, and

a single spring for giving a reaction force in a direction opposite to the turning direction of said steering handle when said steering handle is operated, wherein said single spring is provided with a pair of clamping portions projected outwards from said steering handle shaft portion so as to clamp external surfaces of one of the main frames therebetween,

wherein the first and second main frames have lengths that are longer than the third main frame, and the first and second main frames have shapes that are different from each other.

14. (Original) The riding simulation system as set forth in claim 13, wherein elastic members are interposed between said pair of clamping portions of said spring and said frame.

15. (Previously Presented) The riding simulation system as set forth in claim 3, further comprising:

a taper surface portion formed at an inner circumferential surface of a steering handle pipe constituting said steering handle mechanism, said taper surface portion gradually decreasing in diameter from the side of an end portion of said steering handle pipe; and

a bracket having an engaging portion for engagement with said end portion of said steering handle pipe, having an outer circumferential surface gradually decreasing in diameter from the side of said engaging portion, and being inserted into said taper surface portion while holding said vibrator

wherein the bracket includes a pair of brackets,

wherein each of the brackets includes a recess on an inner surface thereof, and when the brackets are mated together, the recesses of the mating brackets form a space in which the vibrator is disposed wherein recesses have flat inner faces that oppose each other for engaging with left and right flat sides of the vibrator.

16. (Previously Presented) The riding simulation system as set forth in claim 3, further comprising:

a bracket having a hollow space, the bracket being screw-engaged with an end portion of a steering handle pipe constituting said steering handle mechanism, wherein said vibrator is inserted into the inside of said steering handle pipe in the state of being held by said bracket,

wherein the vibrator includes an eccentrically mounted weight extending from an outer end of the vibrator so as to be disposed in the hollow space.

17. (Previously Presented) The riding simulation system as set forth in claim 4, further comprising:

a single spring for giving a reaction force in a direction opposite to the turning direction of said steering handle when said steering handle is operated, wherein said single spring is provided with a pair of clamping portions projected outwards from said steering handle shaft portion so as to clamp external surfaces of one of the at least two main frames therebetween.

18. (Currently Amended) The riding simulation system as set forth in claim 5, further comprising:

a step mechanism comprising a brake pedal and a gear change pedal which are operated by the feet of the operator;

a connection shaft for connecting said steering handle mechanism and said step mechanism to each other, said connection shaft provided to be extendable and contractible along the axial direction thereof; and

a frame body having a cylinder portion and at least two main frames,

wherein said steering handle mechanism is supported by the cylinder portion and the connection shaft is disposed midway between and is supported by lower portions of two of the first to third main frames.

19. (Currently Amended) The riding simulation system as set forth in ~~claim 11~~ claim 13, further comprising:

a step mechanism comprising a brake pedal and a gear change pedal which are operated by the feet of the operator;

a connection shaft for connecting said steering handle mechanism and said step mechanism to each other, said connection shaft provided to be extendable and contractable along the axial direction ~~thereof~~ thereof;

wherein the connection shaft is disposed midway between and is supported by lower portions of two of the first to third main frames, so as to be inclinable by a predetermined amount relative to each of the first to third main frames.

20. (New) The riding simulation system as set forth in claim 11, wherein the click generator is part of a gear change pedal unit, the gear change pedal unit also including a step adapted to accommodate a foot of the operator, the step and the gear change pedal being disposed on one side of the mount plate, and the shaft accommodating the ball member being disposed on an opposite side of the mount plate.